ABSTRACT

Title: Influence of acute stretching on strength predispositions in snowboardcross

Objectives: The aim of the work is to evaluate two effects of stretching - static and dynamic on the strength assumptions of the lower extremities by modifying the Bosco test in a group of 3 athletes in the snowboardcross discipline.

Methods: Power Measurement in Bosco's Test Modification (3 series jumps of 20 seconds with a 20-second pause) after 5 minutes of warm-up on the bike ergometer (1.5W/kg) and application of a predetermined static or dynamic stretch (approximately 14 minutes). The probands are 3 male athletes in the snowboardcross discipline, aged from 16 to 23 years. Their fitness training consists of a gym 3 times a week (60-90min), gymnastics twice a week (90 min) and an individual evening stretching to develop flexibility at least 3 times a week (30 min). In the off-season, athletic training once a week (60 min). Measured values are - jump count, flight phase time in seconds, contact phase time in seconds, average power expressed in watts, and power drop in percent.

Results: We found that two types of stretching - dynamic and static - have different effects on performance in the Bosco test modification. Significantly better results were achieved after application of dynamic stretching. In average performance, the probands improved from 188 ± 5 W after static stretching to 235 ± 5 W after dynamic stretching. At the average flight phase time, probands improved from 10.46 ± 0.06 s after static stretching to 11.37 ± 0.06 s.

Keywords: stretching, strength, influence, dynamic, static, performance, snowboardcross, snowboarding